

ABSTRACT:

An electronic ballast includes a rectifier and filter circuit, a DC/AC inverter circuit and a resonant circuit. An input of the rectifier and filter circuit is connected to an outside power supply, its output is connected to the inputs of DC/AC inverter circuit, an output of the DC/AC inverter circuit is connected to the inputs of resonant circuit, and an output of the resonant circuit is connected to a lamp. The electronic ballast also has a feedback driver circuit and a filament current loop connected to the lamp at its input. An input of the feedback driver circuit is connected to the filament current loop, and its output is connected to the control terminal of the DC/AC inverter circuit. Electrical signals of the filament current loop control the DC/AC inverter circuit to drive the resonant circuit through the feedback driver circuit. The filament capacitor is disconnected from the lamp when the filament is broken, thus, the feedback drive is stopped immediately, the DC/AC inverter circuit has no drive power and the system is stopped operating, so the life-ended protection effect is obtained.